UNIT 6 : THE KEYNESIAN THEORY OF EMPLOYMENT

UNIT STRUCTURE

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6.1 LEARNING OBJECTIVES

After going through this unit you will be able to:

- acquire the concepts of aggregate demand and aggregate supply functions and will be able to draw the Aggregate Demand and Aggregate Supply curves.
- describe the principle of effective demand and how it determines the equilibrium level of employment in the Keynesian analysis.
- to explain how equilibrium income is determined in a two sector closed economy by fulfilling the basic conditions of equilibrium income.

6.2 INTRODUCTION

The Keynesian theory of employment is based on the principle of effective demand i.e., demand which is actually backed by the ability to pay. The effective demand has been defined in terms of aggregate demand and aggregate supply curves. In this section we will be elaborating the concepts

required sale proceeds against a particular volume of employment and that volume of employment is captured by the aggregate supply function. The graphical depiction of this aggregate supply function gives us the aggregate supply curve. As the minimum required sale proceeds increase with the volume of employment, the aggregate supply curve is positively sloped in a two dimensional diagram where employment is measured along the horizontal axis and the sale proceeds are measured along the vertical axis.



CHECK YOUR PROGRESS

Q 1: What do you mean by Aggregate Demand function? (Answer in about 40 words)

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Q 2: What relationship is captured by the Aggregate Supply Function? (Answer in about 40 words)

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Q 3: Why are the ADC and ASC positively sloped? (Answer in about 40 words) .....

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6.4 BASIC FRAMEWORK OF KEYNESIAN THEORY

Keynes occupies an undisputable prominency in the field of modern Economics in general, and the field of Macroeconomics in particular. In fact, in 1936, with the publication of the book General Theory, Keynes establilshed a distinct branch of Macroeconomic thinking, i.e., Keynesian Economics. The theory of employment is central to Keynesian Economics.

depends upon supply price or cost of capital and the prospective yields from capital. On the other hand, rate of interest depends upon liquidity preference and supply money.

Please note that we shall study the above concepts in detail in the subsequent units of the course.

Now, let us first discuss the principle of effective demand.

6.5 THE PRINCIPLE OF EFFECTIVE DEMAND

The point of effective demand refers to the point of intersection of the aggregate demand and aggregate supply curves. It is the point at which the aggregate demand price equals the aggregate supply price. It is that level of aggregate demand for goods and services which is backed up with the resources to acquire them. This is also the aggregate demand in the economy which is met by the corresponding supply.

Effective demand manifests itself in the flow of total expenditure in the economy. From our unit on National Income we know that the value of aggregate expenditure in the economy equals the value of output which in turn equals national income of the country. Now the aggregate expenditure in an economy represents the aggregate demand for goods and services which consist of total consumption and investment expenditure. Thus, we can write,

Effective Demand (ED) = Aggregate Expenditure = Expenditure on consumption goods(C) + Expenditure on investment goods (I)

Or, ED = C + I

Determination of the point of effective demand: As we have already noted, the point of effective demand is established by the point of intersection of the aggregate demand and aggregate supply curves. This is shown in the following Figure 6.2.

In Figure 6.2, the aggregate demand price or proceeds is represented along the Y-axis, and the quantity of employment along the X-axis. The aggregate demand (AD) curve slopes upward to the right indicating that demand increases with employment. This is because as more labour is

equilibrium level of employment is established at Y_0.

We may also note that the point E not only determines the equilibrium level of employment, but also the point of profit maximization for the employment giving entrepreneurs. At this point, entrepreneurs maximize their profit. We observe that at any point to the left of E, the sale proceeds expected are greater than the minimum requirement. Therefore, for profit maximizing entrepreneurs it makes sense to increase the volume of employment. Again, at any point to the right of E, the minimum requirement is more than the maximum sale proceeds expected. Naturally, it means loss to the entrepreneurs and there is no sense in going beyond the point E. Thus, it is only at Y_0 level of employment that entrepreneurs will be in equilibrium enjoying maximization of profit.

We should also note that the point of effective demand does not necessarily correspond to the level of full employment. The economy is said to be fully employed only at the point where the aggregate supply curve becomes perfectly inelastic. In our diagram, Y_1 level of employment corresponds to the point where AS curve has become perfectly inelastic. Thus, Y_1 refers to the volume of full employment. Therefore, at our point of effective demand E, we have an unemployment level of Y_0Y_1.

It can be easily observed in the diagram that full employment can be obtained simply by shifting upward the aggregate demand curve ADC to ADC_1, so that the point of effective demand becomes E_1, which corresponds to the point of full employment. But Keynes sees no reason why aggregate demand curve will be shifted upward by the automatic forces of the market. We know that the constituents of the aggregate demand are: - Consumption Expenditure and Investment Expenditure. Consumption is subjected to the Fundamental Psychological Law of Consumption that makes consumption lag behind income. Investment, on the other hand, is erratic, uncertain, and unreliable because of the strong influence of speculation and expectation. Given this, there is every possibility that the aggregate demand curve (ADC) will intersect the aggregate supply curve (ASC) normally at less than full employment level. The situation can be saved, however, by the intervention by the government with its own fiscal expenditure. The government is in a

and a graphical presentation.

We know that the standard Keynesian consumption function takes the form: C = Ca + bY

where, C: consumption expenditure; Ca: autonomous consumption; Y: income (here, income equals disposable income under the assumption that there is no state intervention in the economy); b: marginal propensity to consume (given by the ratio of change in consumption to a change in income).

Now let us suppose that in an economy, Ca = 500, b = 0.8 and I = 1000. Given this information the equilibrium national income can be obtained as follows:

$$Y = C + I$$

$$Y = (Ca + bY) + I$$

$$Y = 500 + 0.8\,Y + 1000$$

$$Y - 0.8Y = 1500$$

$$0.2Y = 1500$$

Thus, $Y = 7500$

Again, $S = I$

$$Y - C = I \qquad \text{(Saving = Income - Consumption)}$$

$$Y-(500+0.8Y) = 1000$$

$$Y - 0.8Y = 1000+500$$

$$0.2\,Y = 1500$$

Thus, $Y = 7500$

Thus, following the condition of equilibrium national income we arrive at the same figure of 7500 for equilibrium income. This has been shown graphically in Figure 6.3.

In Figure 6.3, the line C represents consumption expenditure, which is based on the Keynesian linear non-proportional consumption function. The slope of the line b is the marginal propensity to consume (mpc).The aggregate expenditure is represented by the line C+I. The gap between C and C+I is defined by the autonomous investment expenditure I. The 45 degree line is the income expenditure identity line. Along this line aggregate expenditure equals income. In the diagram we observe that the aggregate expenditure line (C+I) intersects the 45 degree line at E. Therefore, at point

national income will rise. In our diagram, this is indicated by the upward shift of I to I_a. and that of (C+I) to $(C+I)_a$. Consequently, the point of equilibrium changes from E to E_1 and equilibrium income changes from Y_0 to Y_1. Clearly, $Y_1 > Y_0$. Similarly, when there is a decrease in autonomous investment the equilibrium income experiences a fall. In our diagram, it is indicated by shift of I to I_b and that of (C+I) to $(C + I)_b$. Consequently , the equilibrium point changes to E_2 and we have new equilibrium income at Y_2. Clearly, $Y_2 < Y_0$.

The above analysis is based on the standard Keynesian assumptions and therefore, this model of determining national income is also referred to as the Keynesian Cross Model.



CHECK YOUR PROGRESS

Q 7: Fill in the blank.

Aggregate Value of Output = ...

Q 8: Why does the investment line (I) become parallel to the income axis? (Answer in about 30 words).

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Q 9: Why does the saving line rise upward? (Answer in about 40 words)

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Q 10: What does happen when there is a fall in the autonomous investment? (Answer in about 20 words)

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It should be noted here that even when all points on the 45^0 line represents equilibrium points, in actuality there will be only one macroeconomic equilibrium point. Macroeconomic equilibrium is reached at the point where the aggregate expenditure line crosses the 45^0 line. Please refer to Figure 6.3.



CHECK YOUR PROGRESS

Q 11: When does an economy attain macro economic equilibrium? (Answer in about 30 words).

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Q 12: What is Keynesian cross? What is its significance? (Answer in about 40 words)

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6.8 LET US SUM UP

- Aggregate demand price refers to the maximum sale proceeds expected by the entrepreneurs from the products produced by a given volume of employment.
- The aggregate demand function captures this relationship between a particular volume of employment and the expected maximum sale proceeds from the products produced by that volume of employment. The graphical depiction of this functional relationship gives us the Aggregate Demand Curve (ADC) .
- The graphical depiction of this functional relationship gives us the ADC. As the expected sale proceeds increase with the volume of employment, the aggregate demand curve is positively sloped in a two dimensional

2) Gupta, R.D., & Rana, A.S. (2009). *Keynes and Post-Keynesian Economics*, Jalandhar: Kalyani Publisher.

3) Rana, K.C. & Verma, K.N. (2009). *Macroeconomic Analysis*, Jalandhar: Vishal Publications.



6.10 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: The aggregate demand function captures the relationship between a particular volume of employment and the expected maximum sale proceeds from the products produced by that volume of employment.

Ans to Q No 2: The relationship between the minimum required sale proceeds against a particular volume of employment is captured by the aggregate supply function.

Ans to Q No 3: As the expected sale proceeds increase with the volume of employment, the ADC is positively sloped in a two dimensional diagram. Similarly, as the minimum required sale proceeds increase with the volume of employment the ASC is positively sloped in a two dimensional diagram.

Ans to Q No 4: The point of effective demand refers to the point of intersection of the aggregate demand and aggregate supply curves. It is the point at which the aggregate demand price equals the aggregate supply price.

Ans to Q No 5: Effective demand manifests itself in the flow of total expenditure in the economy. The aggregate expenditure in an economy represents the aggregate demand for goods and services which consist of total consumption and investment expenditure. Thus, aggregate consumption and aggregate investment are the two components of effective demand.

Ans to Q No 6: At any point to the left of the point of effective demand, the sale proceeds expected are greater than minimum requirement.

Long Questions (Answer each question in about 300-500 words)

Q 1: Explain diagrammatically the determination of the point of effective demand.

Q 2: Discuss the Keynesian principle of effective demand.

Q 3: What are the two conditions of equilibrium national income? Use the Keynesian cross model to explain the determination of equilibrium national income of a country.

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